VIII. *Bill of Mortality for* Cheſter *for the Year* 1773. *By* J. Haygarth, *M. D. F. R. S.*

Redde, Feb. 2, 1775. THAT Cheſter is healthy to a very remarkable degree, is ſtill more clearly evinced from the following tables, than in the regiſter of laſt year. In 1772, one half of the inhabitants appeared to arrive at 20 years of age; a fact which ſeemed very ſurpriſing when compared with the proportional mortality in other towns, both of a larger and leſs ſize. But, according to this year's regiſter, one half have lived to be 36 years old. In 1772, one in 15 and 3-4ths had lived to above 80, and this year 1 in 13. Theſe are very uncommon inſtances of longevity for ſo large a proportion of the inhabitants. The inhabitants of St. Michael's pariſh were numbered to be 618, of whom this year ten have died; that is, a leſs proportion than 1 in 61. If the inhabitants of the whole city were numbered with the ſame accuracy as thoſe of St. Michael's, many important concluſions, both medical and political, might with certainty be deduced from the bill of mortality. The regiſter of burials in the nine pariſhes are kept ſeparate; hence, by comparing the number of inhabitants in each pariſh with the burials in each, for a period of years, we may, on the moſt evident foundation, diſcern

which part of the town is moſt healthy. In a political view, ſuch an account would furniſh the beſt means of demonſtrating the accuracy of a table of the probabilities of life, formed from the regiſter, and ſupply unerring *data* for calculating annuities, the value of reverſionary payments, and aſſurances on lives. Such an old town as Cheſter, where the number of inhabitants has for many years ſuffered little variation, and where the births and burials are nearly equal, is peculiarly well fitted to furniſh this important information. At the requeſt of Dr. PRICE, author of the very ingenious eſſays on annuities, &c. an improvement is made in the firſt table, by continuing the diviſion of lives into periods of five years, from 50 till 80, and from that age to the extremity of life, by marking exactly the number dyiug in every year; becauſe for want of ſuch a regiſter, the law, according to which life waſtes after 80, is at preſent almoſt totally unknown, and the values of annuities on ſingle and joint lives, incapable of being calculated with any tolerable exactneſs, beyond 70 or 75. The following tables confirm the obſervation, that women live longer than men. Of thoſe who have lived to above 80, only 10 are males, and 17 females; the number of widowers this year is 17, of widows 44. The table of diſeaſes of different ages (N° II.) confirms in general the obſervations of laſt year. It is evident that no epidemic viſited this place in 1773; not one died of the meaſles, or miliary fever, and the 10 who ſunk under the chinkcough had probably lingered under the diſeaſe

ſince

ſince the former year, towards the end of which it ceaſed to be epidemic. Only one has died of the natural ſmall-pox; twelve were inoculated in Cheſter, during this year, and all recovered. In order to determine the utility of inoculation, it is neceſſary to aſcertain, by an induction of facts, to what proportion of thoſe who are infected, this diſeaſe is fatal in the natural way. I have received a very authentic account of the following fact, which is perhaps the more curious and inſtructive, as no medical practitioner whatever viſited any of the patients during the whole diſeaſe: at Kelſall and Aſhton, two ſmall Cheſhire villages in this part of the county, on an eminence of a dry abſorbent ſand rock, 69 perſons have had the ſmall-pox during the laſt ſeven months; of whom 12 have died, that is, 1 in 5 and 3-4ths. In confirmation of laſt year's obſervation it is proper to remark, that between the ages of 15 and 50, more have died of conſumptions this year, than of all other diſeaſes.

The IIId table ſhews, at one view, what diſeaſes were moſt fatal in each month.

TABLE I. Deaths, Ages and Conditions.

Ages.	Males.	Females.
Under 1 month —	6	4
Between 1-2 months	11	5
2-3	4	6
3-6	8	8
6-9	1	3
9 months and 1 year	2	8
1-2 years old	5	12
2-3	6	5
3-4	4	6
4-5	1	5
5-10	3	7
10-15	2	2
15-20	7	4
Total of the above ages,	60	75

Ages.	Batchelors.	Husbands.	Widowers.	Maids.	Wives.	Widows	Total.
20-25	6	1		4	1		12
25-30	5	3		1	6		15
30-35	1	3		4	3		11
35 40	1	5		1	14		21
40-45	1	9	1	2	6	1	20
45-50		10	1	2	1	3	17
50-55	1	3	1	3	5	2	15
55-60		3	1		6	3	13
60-65	2	4	2	2	5	2	17
65-70		4	1	1	2	5	13
70-75	1	5	3		5	10	24
75-80			2	2	1	7	12
80			2	1		2	5
81	1						1
82		1	1			1	3
83						2	2
84					1	1	2
85			1				1
86						1	1
87		1		1		2	4
88					1		1
90						1	1
92		1				1	2
97			1				1
98					1	1	2
106	1						1
Total of ages and conditions,	20	53	17	24	58	45	217

Total of ages under 20 years, { Males, 60 / Females, 75 } 135

Total, 352

TABLE

DISEASES. TABLE II. Diſeaſes of different Ages.

I. FEBRILE DISEASES.	Under 1 year.	Betw. 1 & 2.	2-3.	3-5.	5-10.	10-15.	15-20.	20-30.	30-40.	40-50.	50 60.	60-70.	70 80	80 90.	90-100.
Fever(CULLEN'sGENERA) 5 6	1		1	5	3	1	1	2	6	4	4	2	3		
Impoſthume (G. 7.)							1								
Angina pectoris (G. 7.)										1					
Mortification (G. 7.)								2	1	1	1	1	2		
Quinſey (G. 10.)	1														
Infl. of the bowels (G. 16.)									3			1			
Gravel and Stone (G. 19.)													1		
Teething (Sauv. G. 198.)	1	1													
Small-Pox (G. 26.)				1											
Thruſh (G. 33.)	1														
Conſumption (G. 35.)	2	1	3	1	2	3	9	15	14	16	7				
Hæmorrhage (G. 37.)								1							
II. NERVOUS DISEASES.															
Sudden death (G. 40?)								1	1	2		2	1		
Palſy (G. 41.)									1	1	2	2	2		
Swoon? (G. 42.)									1						
Indigeſtion (G. 43.)										2	3				
Convulſions (G. 48. 50.)	50	8	3	3				1	2	1		1			
Aſthma (G. 52.)									1	1	4	4	6		
Chinkcough (G. 53.)	3	3	2	1	1										
Colic (G. 55.)					1					1		1			
Looſeneſs (G. 57.)	1														
Infanity (G. 63.)								1		1		1			
III. DISEASES of the HABIT.															
Weakneſs of infancy (G. 65.)	4	4	2	3											
Decay of age (G. 66.)											5	12	18	20	6
Dropſy G. 71. 75.								1	1	4	2	2	3		
Dropſy of the brain (G. 72.)					1										
Jaundice (G. 87.)									1	1					
IV. LOCAL DISEASES.															

90.	90-100.	100 & upw.	To al.
			33
			1
			1
			8
			1
			4
			1
			2
			1
			1
			73
			1
			7
			8
			1
			5
			69
			16
			10
			3
			1
			3
			13
	6	1	62
			13
			1
			2

IV. Local Diseases.																
Cancer (G. 114.)					1								1			
Unknown diſeaſes.	1							1								
Caſualties.				2	1			2		1		1				
Total,	65	17	11	16	10	4	11	27	32	37	28	30	37	20	6	

MORBORUM GENERA.

Classis I. Pyrexiæ.

G. 5. 6. Typhus. Synochus.
G. 7. Apoſtema.
G. 7. Apoſtema mediaſtini.
G. 7. Gangræna.
G. 10. Cynanche.
G. 16. Enteritis.
G. 19. Nephritis.
Sauv. G. 198. Odontalgia dentitionis.
G. 26. Variola.
G. 33. Aphtha.
G. 35. Phthiſis.
G. 37. Menorrhagia *lochialis*.

Classis II. Neuroses.

G. 40. Apoplexia?
G. 41. Paralyſis.
G. 42. Synchope? *(puerperalis.)*
G. 43. Dyſpepſia.
G. 48, 50. Convulſio. Epilepſia.
G. 52. Aſthma.
G. 53. Pertuſſis.
G. 55. Colica.
G. 57. Diarrhæa.
G. 63. Mania.

Classis III. Cachexiæ

G. 65. Tabes, atrophia infantilis
G. 66. Atrophia ſenilis.
G. 71. 75. Aſcites. Anaſarca.
G. 72. Hydrocephalus.
G. 87. Icterus.

Classis IV. Locales

G. 114. Cancer.

		2
		2
		7
6	1	352

ACHEXIÆ.
a infantilis.
s.
nafarca.
.

LOCALES.

TABLE

TABLE III. Diſeaſes of different Months.

Diseases I. Febrile Diſeaſes.	Jan.	Feb.	March	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
Fever (Cullen's Genera 5,6.)	1	4	6	4		5	1	2		3	1	6	33
Impoſthume (G. 7.)												1	1
Angina pectoris (G. 7.)						1							1
Mortification (G. 7.)		1		1		1	1			1	1	2	8
Quinſey (G. 10.)				1									1
Infl. of the bowels (G. 16.)				1	1	1						1	4
Gravel and ſtone (G. 19.)					1								1
Teething (Sauv. 198)	1					1							2
Small-pox (G. 26.)										1			1
Thruſh (G. 33.)					1								1
Conſumption (G. 35.)	5	11	8	6	10	5	5	3	1	1	8	10	73
Hæmorrhage (G. 37.)		1											1
II. Nervous Diseases.													
Sudden death (G. 40.)						1		1		2		3	7
Palſy (G. 41.)	1	1	2	2							2		8
Swoon (G. 42.)			1										1
Indigeſtion (G. 43.)			1	2				1	1				5
Convulſions (G. 48, 50.)	8	7	3	11	6	7	4	6	3	2	3	9	69
Aſthma (G. 52.)	2	3	5	2					2			2	16
Chinkcough (G. 53.)	4	3		1				1		1			10
Colic (G. 55.)		1									2		3
Looſeneſs (G. 57.)											1		1
Inſanity (G. 63.)			1	1	1								3
III. Diseases of the Habit.													
Weakneſs of infancy (G. 65.)		2	1	1	2	2	1			1		3	13
Decay of age (G. 66.)	3	10	7	8	8	5	2		3	4	6	6	62
Dropſy (G. 71, 75.)	2		1	1	2	1		2	1		2	1	13
Dropſy of the brain (G. 72)			1										1
Jaundice (G. 87.)									1	1			2
IV. Local Diseases.													
Cancer (G. 114.)	1									1			2

IV. Local Diseases.													
Cancer (G. 114.)	1									1			2
Unknown diſeaſes.					1						1		2
Caſualties.		1				3						3	7
Total,	28	45	37	42	33	33	14	16	12	18	27	47	352

GENERAL BILL of MARRIAGES, BAPTISMS, and BURIALS. For the YEAR 1773.

Marriages, 133. Baptiſms, {Males, 216 / Females, 186} 402. Deaths, {Males, 150 / Females, 202} 352.

IX. *Experiments*

DISEASES. TABLE II. Diseases of different Ages.

I. Febrile Diseases	Under 1 year	Between 1 & 2	2 & 3	3 & 5	5 & 10	10 & 15	15 & 20	20 & 30	30 & 40	40 & 50	50 & 60	60 & 70	70 & 80	80 & 90	90 & upwards	100 & upwards	Total
Fever (Cullen's Genera) 5 6	1		1	3	3	1	1	2	6	4	4	2	3				33
Impesthume (G 7)							1										1
Ang na pectoris (G 7)										1							1
Mortification (G 7)								2	1	1	1	1	2				8
Quinsey (G 10)	1																1
Inflammation of the bowels (G 16)									3			1					4
Gravel and Stone (G 19)													1				1
Teething (Sauv G 198)	1	1															2
Small Pox (G 26)				1													1
Thrush (G 33)	1																1
Consumption (G 35)	2	1	3	1	2	3	9	15	14	16	7						75
Hæmorrhage (G 37)								1									1
II. Nervous Diseases																	
Sudden death (G 40?)								1	1	2		1	1				7
Palsy (G 41)									1	1	2	2	2				8
Syncope (G 42)									1								1
Indigestion (G 43)										2	3						5
Convulsions (G 48 50)	50	8	3	3				1	2	1		1					69
Asthma (G 52)									1	1	4	4	6				16
Chincough (G 53)	3	3	2	1	1												10
Colic (G 55)					1					1		1					3
Looseness (G 57)	1																1
Infirmity (G 63)								1		1		1					3
III. Diseases of the Habit																	
Weakness of infancy (G 65)	4	4	2	3													13
Decay of age (G 66)											3	12	18	20	6	1	60
Dropsy G 71 75								1	1	4	2	2	3				13
Dropsy of the brain (G 72)					1												1
Jaundice (G 87)									1	1							2
IV. Local Diseases																	
Cancer (G 214)					1							1					2
Unknown diseases	1							1									2
Casualties				2	1			3		1		1					7
Total	65	17	11	16	10	4	11	27	32	37	28	30	37	20	6	1	352

MORBORUM GENERA.

Classis I. Pyrexiæ

G 5 6 Typhus. Synochus.
G 7 Apostema.
G 7 Apostema metastasis.
G Gangræna
G 10 Cynanche
G Ictericia.
G 19 Nephritis.
Sauv G 198 Odontalgia dentitionis.
G 20 Variola.

G 33 Aphtha.
G 35 Phthisis.
G 37 Menorrhagia lochiali
Classis II. Neuroses
G 40 Apoplexia
G 41 Paralysis
G 42 Syncope? (puerperali)
G 43 Dyspepsia.
G 48 50 Convulsio. Epilepsia.
G 52 Asthma.
G 53 Tussis.

G 55 Colica.
G 58 Diarrhœa.
G 63 Mania
Classis III. Cachexiæ
G 65 Tabes, atrophia infantilis.
G 66 Atrophia senilis.
G 71 75 Ascites. Anasarca.
G 72 Hydrocephalus.
G 87 Icterus.
Classis IV. Locales
G 214 Cancer

TABLE III. Diſeaſes of different Months

Diſeaſes	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
I. Febrile Diſeaſes.													
Fever (Cullen's Genera 56)	1	4	6	4		5	1	2		3	1	6	33
Impoſthume (G 7)												1	1
Angina pectoris (G 7.)						1							1
Mortification (G 7)		1		1		1	1			1	1	2	8
Quinſey (G 10)				1									1
Inf. of the bowels (G 16)				1	1	1						1	4
Gravel and ſtone (G 19.)					1								1
Teething (Sauv. 198)	1					1							2
Small-pox (G 26)										1			1
Thruſh (G 33)					1								1
Conſumption (G 55)	5	11	8	6	10	5	5	3	1	1	8	10	73
Hemorrhage (G 37)		1											1
II. Nervous Diſeaſes													
Sudden death (G 40.)						1		1		2		3	7
Palſy (G 41)	1	1	2	1							2		7
Apoplexy (G 42)			1										1
Indigeſtion (G 43.)			1	2				1	1				5
Convulſions (G 48, 50)	8	7	5	11	6	7	4	6	3	2	3	3	69
Aſthma (G 52)	1	3	3	2					1			2	16
Chincough (G 53)	4	3		1				1		1			10
Colic (G 55)		1									2		3
Looſeneſs (G 57)											1		1
Infanity (G 63)			1	1	1								3
III. Diſeaſes of the Habit													
Weakneſs of infancy (G 65)		2	1	1	2	2	1			1		3	13
Decay of age (G 66)	3	10	7	3	8	5	2		3	4	6	6	62
Dropſy (G 71, 75)	1		1	1	2	1		2	1		2	1	13
Dropſy of the brain (G 72)			1										1
Jaundice (G 87)									1	1			2
IV. Local Diſeaſes.													
Cancer (G 124.)	1									1			2
Unknown diſeaſes.					1						1		2
Caſualties.		1				5						1	7
Total,	28	45	37	42	53	55	14	16	12	18	27	47	352

GENERAL BILL of MARRIAGES, BAPTISMS, and BURIALS For the YEAR 1773.

Marriages, 133. Baptiſms, {Males, 216 / Females, 186} 402 Deaths, {Males, 150 / Females, 202} 352.